

WHAT IS CLAIMED IS:

1. A steel excellent in abrasion resistance consisting essentially of 8.0-35.0 wt.% Cr, 0.05-1.20 wt.% C, 0.05-3.0 wt.% at least one of Ti, Nb, Zr, V and W, the balance being essentially Fe and having the structure that a total amount of Ti, Nb, Zr, V and/or W carbide precipitates distributed in a steel matrix is adjusted to 0.1 wt.% or more.

3. An abrasion-resistant steel consisting essentially of:

8.0 to 35.0 wt.% Cr;

0.05 to 1.20 wt.% C;

at least one of 0.05 to 1 wt.% Ti and 0.05 to 1.50 wt.% Nb wherein an aggregate of Ti + Nb is 0.50 to 2.0 wt.%;

optionally one or more metals selected from the group consisting of Zr, Al and W in an aggregate summed with Ti + Nb up to 3.0 wt.%;

further optionally one or more of 0.2-5.0 wt.% Ni, 0.1-3.0 wt.% Mo and 0.2-3.0 wt.% Cu; and

with the balance being essentially Fe,

wherein said Ti, Nb, Zr, V and/or W are present in the form of carbide precipitates distributed within a steel matrix in an amount of at least 0.1 wt.%.

BEST AVAILABLE COPY